



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/799,001

03/12/2004

Bernd Schmandt

LLP113US

7567

51092 7590 09/18/2008  
ESCHWEILER & ASSOCIATES LLC  
629 EUCLID AVENUE, SUITE 1000  
NATIONAL CITY BUILDING  
CLEVELAND, OH 44114

EXAMINER

FLORES, LEON

ART UNIT

PAPER NUMBER

2611

NOTIFICATION DATE

DELIVERY MODE

09/18/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

Docketing@eschweilerlaw.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/799,001	<b>Applicant(s)</b> SCHMANDT ET AL.	
	<b>Examiner</b> LEON FLORES	<b>Art Unit</b> 2611	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 June 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 2,3,8-10 and 14-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4-7,11-13,18 and 19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims (1 & 13) have been considered but are moot in view of the new ground(s) of rejection.

### ***Response to Remarks***

Applicant asserts that "*Chen does not disclose the required act of "repeating the acts of incrementing and decrementing the counter until the count exceeds a prescribed threshold value," as recited in claims 1 and 13. Gan fails to remedy the shortcomings of Chen. Therefore, because all elements of claims 1 and 13 have not been established by the prior art of record, the applicants respectfully request withdrawal of the § 103(a) rejection*".

The examiner agrees. However, a new ground of rejection has been issued.

Applicant finally asserts that "*None of the prior art of record teaches "'repeating the acts of incrementing and decrementing the counter until the count exceeds a prescribed threshold value', as recited in claims 1 and 13".*

The examiner respectfully disagrees. In the last office action the examiner used the reference of Knuth to show that incrementing and decrementing a counter is very well known in the art. However, applicant is silent in regards to the reference of Knuth. At any point does applicant argues (explicitly) that the reference of Knuth does not teach/suggest this limitation.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims (1, 4-7, 11-13, 18-19) are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 1 recites the limitation “the count” in line 11 & line 12. There is insufficient antecedent basis for this limitation in the claim.

5. Claim 1 recites the limitation “the channel” in line 12. There is insufficient antecedent basis for this limitation in the claim.

6. Claim 13 recites the limitation “the count” in line 10 & line 11. There is insufficient antecedent basis for this limitation in the claim.

7. Claim 13 recites the limitation “the channel” in line 11 & line 13. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**10. Claims (1, 4-7, 11-13, 18-19) are rejected under 35 U.S.C. 103(a) as being unpatentable over Gan et al. (hereinafter Gan) (US Patent 7,027,418 B2) in view of Knuth et al. (hereinafter Knuth) (US Patent 5,418,839)**

Re claim 1, Gan discloses a Method for selecting frequency channels in a data transmission method that uses a frequency hopping method, comprising: determining an existence of interference on a frequency channel, comprising: eliminating the frequency channel from a frequency hopping sequence when a determination is made that interference exists thereon the frequency channel (See col. 6, lines 30-34); measuring a strength of external signals within a frequency range of an eliminated frequency channel (See col. 6, lines 30-34, 47-48, 50-54, col. 7, lines 51-55, col. 12, lines 36-39); and reinserting the frequency channel into the frequency hopping sequence ff when the measured strength is below a prescribed threshold value.(See col. 20, lines 46-52, col. 12, lines 36-39) Furthermore, re-testing and re-determination of the channel performance must be done in order to select good channels and not bad channels. This is due to interference changing over time – some “previously good channels may become bad and vice versa”. One way to retest the channels is to measure the RSSI of the channel. If “there is not interference, the RSSI will be low”.

But the reference of Gan fails to teach incrementing a counter each time an

Art Unit: 2611

erroneous transmission on the frequency channel is identified; decrementing the counter each time an error-free transmission on the frequency channel is identified; determining that interference exists on the channel when the count exceeds the prescribed threshold value.

However, Knuth does. (See col. 6, line 23 – col. 8, line 29) Knuth discloses incrementing a counter each time an erroneous transmission on the frequency channel is identified (col. 6, lines 44-61); decrementing the counter each time an error-free transmission on the frequency channel is identified (col. 6, lines 44-61. Furthermore, incrementing or decrementing the counter are well known in the art.); determining that interference exists on the channel when the count exceeds the prescribed threshold value. (col. 8, lines 15-20)

Therefore, taking the combined teaching of Gan and Knuth as a whole, it would have been obvious to one of ordinary skills in the art to incorporate these features into the system of Gan, in the manner as claimed and as taught by Knuth, for the benefit of determining interference in a channel.

The combination of Gan and Knuth discloses the limitations as claimed above, except they fail to explicitly teach repeating the acts of incrementing and decrementing the counter until the count exceeds a prescribed value.

However, the reference of Knuth does suggest repeating the acts of incrementing and decrementing the counter until the count exceeds a prescribed value. (See col. 6, lines 48-53 & col. 8, lines 15-18)

Therefore, it would have been obvious to one of ordinary skills in the art to

incorporate this feature into the system of Gan, as modified by Knuth, in the manner as claimed, for the benefit of determining interference in a channel.

Re claim 4, the combination of Gan and Knuth further discloses that wherein detecting an erroneous transmission further comprises using checksums that are added to block- transmitted data at an end thereof. (In Gan, see col. 13, lines 13-18)

Re claim 5, the combination of Gan and Knuth further discloses that wherein using checksums comprises adding a CRC (Cyclic Redundancy Check) code to each data block at the end thereof. (In Gan, see col. 13, lines 30-38)

Re claim 6, the combination of Gan and Knuth further discloses that wherein the data transmission method comprises a timeslot method, and measuring the external signal strength comprises measuring during unused timeslots. (In Knuth, see 12, lines 57-65)

Re claim 7, the combination of Gan and Knuth further discloses that wherein measuring the external signal strength comprises performing a field strength measurement based on the RSSI (Radio Signal Strength Indication) method. (In Gan, see col. 12, lines 21-53)

Re claim 11, the combination of Gan and Knuth further discloses a method for

data transmission between at least two stations via radio links using the frequency hopping method and the frequency channel selection method of Claim 1. (In Gan, see col. 17, lines 35-37)

Re claim 12, the combination of Gan and Knuth further discloses that wherein the method is based on one of the transmission standards Bluetooth, WDCT, DECT or HomeRF. (In Gan, see col. 7, lines 51-52)

Claim 13 has been analyzed and rejected w/r to claim 1 above.

Claim 18 has been analyzed and rejected w/r to claim 1 above.

Claim 19 has been analyzed and rejected w/r to claim 1 above.

### ***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of



Art Unit: 2611

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Contact***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEON FLORES whose telephone number is (571)270-1201. The examiner can normally be reached on Mon-Fri 7-5pm Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Payne can be reached on 571-272-3024. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/L. F./

Examiner, Art Unit 2611  
September 9, 2008

/David C. Payne/

Application/Control Number: 10/799,001  
Art Unit: 2611

Page 9

Supervisory Patent Examiner, Art Unit 2611